

1 **WAC 463-XX-XXX Carbon Dioxide (CO₂) Emissions Mitigation Standard:**

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3 **(1) Introduction.** This rule establishes a carbon dioxide (CO₂) emissions mitigation
4 standard for fossil fueled thermal power plants that are under council jurisdiction. The rule has a
5 standard for emissions mitigation, and provides the procedures to implement this requirement.
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7 **(2) Policy.** CO₂ emissions contribute significantly to global warming. To issue a site
8 certificate agreement, the Council shall require fossil fueled thermal power plants to comply with
9 the applicable CO₂ emissions mitigation standard adopted by the Council. In the event that
10 federal CO₂ legislation is adopted, compliance with this rule may entitle the certificate holder to
11 receive credits made available pursuant to that legislation.
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13 **(3) Applicability**

14 (a) These requirements apply to all fossil fueled thermal power plants under the
15 jurisdiction of the Council on or after July 1, 2004 that:

- 16 (i) receive a new site certification agreement and produce 350 MW or more of power;
17 (ii) have an existing site certification agreement and increase the CO₂ emissions by 18,500
18 metric tons or more per year through changes or modification in equipment or operations; or
19 (iii) come under Council jurisdiction because of reconstruction or enlargement of existing
20 facilities under RCW 80.50.060 for the net increase in generation resulting from the
21 reconstruction or enlargement.

22 (b) Any increase of CO₂ emissions meeting the criteria in (a)(ii) and (a)(iii) of this section
23 shall be mitigated according to the CO₂ mitigation standard in place at the time of the increased
24 emissions.
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26 **(4) Definitions** Unless otherwise specified in this section, the following definitions apply:

27 (a) "Beginning construction" means initiation of any actual construction activities such as
28 form work or pouring of concrete for the power block structures.

29 (b) "Commercial operation" means the time that the first electricity produced by a project
30 is delivered for commercial sale to the electrical power grid

31 (c) "Council" is the Washington Energy Facility Site Evaluation Council.

32 (d) "Fossil fueled thermal power plant" is a generation facility that uses natural gas,
33 petroleum, coal, or any form of solid, liquid, or gaseous fuel derived from such material (from 40
34 CFR 72.2) to produce heat for the generation of electricity.

35 (e) "Metric ton" equals 2204.6 U.S. pounds.

36 (f) "Qualified organization" is an entity approved by the Council meeting the requirements
37 in Section (10) below that will solicit and/or ensure implementation of activities that mitigate
38 CO₂ emissions.

39 (g) CO₂ shall be mitigated at \$0.87 per metric ton (2003 dollars, based on the Gross
40 Domestic Product, Implicit Price Deflator, published by the Bureau of Economic Analysis, U.S.
41 Department of Commerce, or comparable index).

42 (h) Twenty percent (20%) of the total calculated metric tons of CO₂ shall be mitigated.

43 (i) Mitigation shall be based on calculated CO₂ emissions assuming plant operations at
44 100% capacity over a thirty year time period.

(j) The amount of CO₂ emitted shall be determined using the formula below based on the manufacturer's guaranteed total net generating capacity (kilowatt hours) and new equipment heat rate, produced over a thirty year (30) year period.

(k) Calculations for the total metric tons of CO₂ shall be based on a two (2) year average for temperature, humidity and barometric pressure at the site.

$$T_m CO_2 = \frac{G_n \times F_{rate} \times K_{factor}}{T_m} \times T_{30} \times M_p$$

$T_m CO_2$ = Metric tons of carbon dioxide emissions for 30 years to be mitigated

G_n = Net generating capacity per year (kilowatt hours)

F_{rate} = Fuel firing heat rate (Btu/kwh)

K_{factor} = Conversion factor – Pounds of CO₂/Btu (depending on fuel type¹)

T_m = Metric tons (2,204.6 U.S. Pounds)

T_{30} = 262,800 hours (30 years).

M_p = Mitigation percent (20%)

(l) Developers may meet all or a portion of their CO₂ mitigation requirements under this standard through direct application of combined heat and power (cogeneration). No later than one hundred and twenty (120) days prior to start of commercial operation, the developer shall submit independent third party verification of the combined heat and power offsets for Council review and approval.

(5) CO₂ Project Preference and Priority. The Council shall require there be a preference and priority for CO₂ mitigation offsets to be located within the county or immediate surrounding counties where the energy facility is located, and second within the State of Washington.

(6) CO₂ Mitigation Options. Within ninety (90) days after approval of the site certification agreement by the governor, the certificate holder shall notify the council of its choice of procedures for CO₂ mitigation. The certificate holder shall choose one of the following CO₂ mitigation procedures:

(a) Payment to a third party; or

(b) Direct conduct investment in CO₂ mitigation project(s).

(7) Payment to Third Party – The payment amount for CO₂ mitigation shall be determined using the standard in Section (5) above.

(a) No later than sixty (60) days prior to start of construction the certificate holder shall make a one-time payment to the qualified organization for an amount as determined in Section (5) above per metric of CO₂. This one-time payment shall satisfy the requirements of this section except as provided in section (3)(ii) where there is an increase in CO₂ emissions, or;

(b) No later than sixty (60) days prior to the start of construction the certificate holder shall make partial payment of twenty percent (20%) of the total cost of CO₂ mitigation and thereafter one equal payment in each of the following four years on the anniversary of the initial payment, except as provided below for changes to the CO₂ standard during the period of payments.

(i) If the standard for CO₂ mitigation in Section (5) changes during the five (5) years

¹ Conversion factors shall be obtained from US Dept. of Energy, Energy Information Administration -1605 Fuel and Energy Source Codes and Emission Coefficients or similar documents.

1 following start of commercial operation, the amount of payment shall be adjusted to match the
2 standard in effect for the remaining payments following the change in the standard.

3 (ii) With the initial payment, the certificate holder shall provide a letter of credit or other
4 comparable security acceptable to the Council for the remaining eighty percent (80%) of the
5 funds. Should the CO₂ standard change during the period of payments, the certificate holder
6 shall update its letter of credit to cover the future payments due to the change in the standard for
7 CO₂ mitigation.

8
9 **(8) Direct Investment** - A certificate holder may directly provide for CO₂ mitigation by
10 conducting or financing projects that mitigate the amount of metric tons of CO₂ as determined
11 using the standard and formula set in Section (5).

12 (a) .When a certificate holder undertakes direct investment for CO₂ mitigation projects,
13 those projects or mitigation must be fully in place one hundred and twenty (120) days after start
14 of commercial operation, or as otherwise determined by the Council.

15 (b) For CO₂ mitigation conducted directly by the certificate holder, the certificate holder
16 shall:

17 (i) Submit for Council approval a detailed description of the proposed CO₂ mitigation
18 project(s) at least one hundred and eighty (180) days prior to the planned start of commercial
19 operation.

20 (ii) The Council shall approve or reject the proposed project(s) within ninety (90) days of
21 receipt of the certificate holder's proposal.

22 (iii) Approved certificate holder's project(s) for CO₂ mitigation shall be implemented
23 within one hundred and twenty (120) days after start of commercial operation, or as otherwise
24 determined by the Council.

25 (iv) The certificate holder shall not use more than fifteen percent (15%) of the total funds
26 for selection, monitoring, evaluation of mitigation projects and enforcement of contracts.

27 (v) The certificate holder must demonstrate that the proposed offset projects meet the
28 criteria contained in Section (10) (b) through (g).

29 (c) The applicant shall file biennial reports with the council on actual offsets achieved
30 and a statement of costs for the period. This information will be used by the Council to track
31 actual offsets and costs for use when updating this rule. Biennial reports shall end when the
32 project fulfills its projected goals or as approved by the Council.

33 34 **(9) Qualified CO₂ Mitigation Organization**

35 (a) The council shall maintain a list of qualified organizations with proven experience in
36 emissions mitigation activities.

37 (b) Prior to signing contracts to purchase offsets with funds from certificate holders, the
38 independent qualified organization must be approved by the Council and shall demonstrate to the
39 Council's satisfaction that the project(s) it proposes to undertake satisfy the criteria as follows:

40 (i) provides reasonable certainty that CO₂ offsets will be met;

41 (ii) minimizes the extent, to which external events can reduce the amount of CO₂
42 sequestered or offset;

43 (iii) sequesters or offsets carbon for a period of time not less than thirty (30) years;

44 (iv) accomplishes CO₂ emission reductions that would otherwise not have taken place;

1 (v) includes independent monitoring and verification to determine that reductions are
2 actually made compared to a predetermined baseline. Organizations retained to provide
3 independent monitoring and verification must be approved in advance by the Council.

4 (c) A qualified organization shall not use more than fifteen percent (15%) of the total funds
5 for selection, monitoring, evaluation of mitigation projects and management and enforcement of
6 contracts.

7 (d) No later than sixty (60) days prior to the start of commercial operation of the fossil-
8 fueled thermal power plant, the certificate holder or qualified organization shall provide the
9 Council with a summary of the CO₂ mitigation project(s) and their location, the reason the
10 projects were chosen, and a description of how the projects will achieve the offsets.

11 (e) For illustrative purposes, appropriate CO₂ emissions offset projects might fall into the
12 following categories: energy efficiency measures, clean and efficient transportation measures,
13 renewable energy resources, and sequestration programs.

14 (f) The qualified organization shall provide the opportunity for the State of Washington
15 to appoint three (3) ex-officio members to serve in an advisory capacity on mitigation projects
16 undertaken and resulting from projects in Washington State.

17 (g) The qualified organization shall file biennial reports with the council on actual offsets
18 achieved and a statement of costs for the period. This information will be used by EFSEC to
19 track actual offsets and costs for use when updating this rule.

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21 **(10) Process for updating the standard.**

22 (a) The Council shall conduct an evaluation of current CO₂ mitigation no more
23 frequently than every two (2) years, and may establish new values for:

24 (i) the cost to mitigate a metric ton of CO₂ based on this evaluation, and

25 (ii) the percentage of each metric ton of CO₂ that is emitted by the thermal power plant
26 that must be mitigated.

27 (b) During any two year period, the council may not increase the price for mitigating a
28 metric ton of CO₂ or the percentage of total emissions that must be mitigated for by more than
29 fifty percent (50%).

30 (c) To prevent erosion of the environmental benefits, during any review of the CO₂
31 mitigation price per metric ton, increases will be indexed to an escalation in the offset market
32 cost rather than merely to the general inflation rate.